

REMARKS

The instant amendment is being filed simultaneously with a Petition to Withdraw the subject application from issue. Applicants are filing the instant amendment to ensure that the currently allowed claims are properly interpreted upon issuance.

By the above actions, claims 92-97 have been added to more succinctly set forth the features of the invention, particularly, those disclosed, at least, at page 3, line 7, of the specification. Specifically, the features of the invention expressly recited are those in which the semiconductor film does not orient along a crystallographic (111) plane. This is necessary since the independent claims 60, 72, 74, 84, 86, 88 and 90 do not explicitly recite the features of claims 92-97. Accordingly, claims 60-62, 72-74, 81 and 83-97 are pending and ready for examination.

As currently provided in the pending claims, independent claims 60, 72, 74, 84, 86, 88 and 90 include a method of manufacturing a semiconductor device including not only semiconductor films which have no crystallographic orientation in the (111) plane, but also semiconductor films which may include impurity level proportions of their crystallographic structure oriented in the (111) plane as inherently occurs in any process for crystallizing a semiconductor film. For example, see the Tamura et al. article, "Oriented Crystal Growth of Si on SiO₂ Patterns by Pulse Ruby Laser Annealing" Proceedings of the 12th Conference on Solid State Devices, Tokyo (1980), pp. 43-48, which is cited in the attached Information Disclosure Statement, as well as additional literature references relating to this issue.

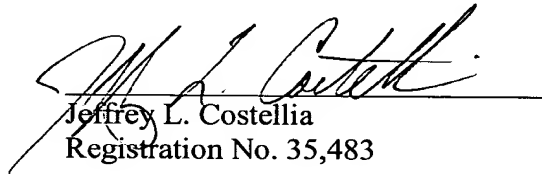
As can be seen in the Tamura et al. article, particularly at pages 45-47, variations in the crystalline orientation of a crystallized semiconductor film can vary depending on a number of factors. Specifically, at the center of the growth region, an orientation along a single plane may occur. However, at the edges of the growth region, for example, other orientations or even polycrystallinity can occur in small proportions. The

reasons for the occurrence of other orientations (other than the principle orientation) in a crystallized semiconductor film can be due to variations in the formation process itself, e.g. laser strength variations occurring during the laser annealing step, or due to the presence of density dislocations in the amorphous- or poly-Si layer to be crystallized. The result is that, while the crystallized semiconductor film is overwhelmingly oriented in a particular plane in the present invention other than (111) plane, a proportion of the semiconductor film may be oriented in some other orientation or even exhibits a polycrystalline structure.

Applicants argued during the prosecution of the subject application and the specification provides that the method of the invention provides a semiconductor film crystallized so as not to have a (111) plane orientation. For reasons provided above and in detail in the attached articles, these arguments and disclosure should not be interpreted to mean that there is no (111) plane orientation at all in the resulting semiconductor film. One of ordinary skill would appreciate that the specification and these arguments is to significantly reduce (111) plane, but not completely zero (111) plane. Thus, one of skill in the art would appreciate that independent claims 60, 72, 74, 84, 86, 88 and 90 should be interpreted to possibly include minor amounts of (111) plane orientation crystals. Claims 92-97 are added to expressly provide the formation of a semiconductor film that does not orient along a crystallographic (111) plane, thus, further limit the claims from which they depend.

An early and favorable Notice of Allowance is respectfully solicited. In the event that the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, the Examiner is courteously requested to contact Applicant's undersigned representative.

Respectfully submitted,



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